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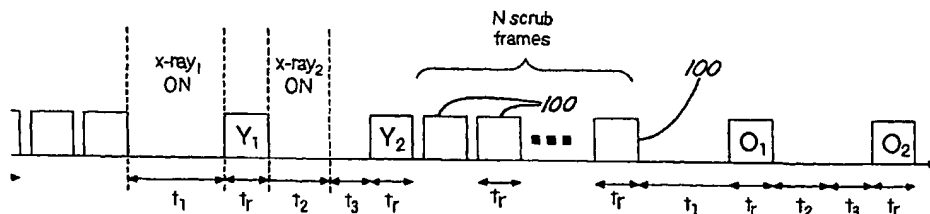
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24 October 2002

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND SYSTEM FOR DUAL ENERGY RADIOGRAPHIC IMAGING EMPLOYING A DIGITAL DETECTOR



(57) Abstract: A method and system for minimizing motion artifacts in Dual Energy Subtraction digital radiographic imaging applications by minimizing the time lapse between the two x-ray exposure frames. This is accomplished by acquiring the two x-ray exposure frames relatively consecutively without a corresponding offset frame reading in-between the two x-ray frame exposures. The offset frames are acquired following the x-ray exposure frames with a corresponding timing sequence which is correlated to the x-ray frame exposure and reading sequence. The method includes the steps of exposing a radiographic detector (22) at a first energy level for a time period t_1 ; reading the radiographic detector (22) to obtain a first exposure reading; exposing the radiographic detector (22) at a second energy level for a time period t_2 ; reading the radiographic detector (22) to obtain a second exposure reading; after a time period equal to t_1 , reading the radiographic detector (22) to obtain an offset reading; and subtracting the offset reading from the first and second exposure readings.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 01/48639

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61B6/03

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61B G01T G06T H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 069 935 A (NEUGROSCHL DANIEL A ET AL) 30 May 2000 (2000-05-30) column 5, line 44 -column 10, line 39; figure 5 ---	
A	US 6 028 314 A (FINKLER KLAUS) 22 February 2000 (2000-02-22) column 1, line 20 -column 3, line 41 ---	
A	US 5 452 338 A (GRANFORS PAUL R ET AL) 19 September 1995 (1995-09-19) column 2, line 30 -column 4, line 15; figures 1,2 --- -/--	



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

12 July 2002

Date of mailing of the international search report

23/07/2002

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INTERNATIONAL SEARCH REPORT

International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 115 451 A (BELANGER BARRY FREDRIC ET AL) 5 September 2000 (2000-09-05) cited in the application column 1, line 10 -column 3, line 21; figures 1,4 ---	
A	US 5 530 238 A (MEULENBRUGGE HENDRIK J ET AL) 25 June 1996 (1996-06-25) column 5, line 43 -column 7, line 15 column 8, line 44 -column 9, line 7; figure 3 ---	
A	US 5 352 884 A (PETRICK SCOTT W ET AL) 4 October 1994 (1994-10-04) column 1, line 52 -column 3, line 66; figure 1 -----	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 01/48639

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 1-10
because they relate to subject matter not required to be searched by this Authority, namely:
Rule 39.1(iv) PCT - Diagnostic method practised on the human or animal body.
Due to the use of X-rays, health risks for the patient are involved.
However,
claims 1-10 have been searched insofar as the system is concerned.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/48639

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